

## ArcGIS Explorer - Quick Help

Things you can do: See aerial background, view multiple layers, search (by parcel number, pid or address), Create notes, Measure area and use many other tools to view geographical data.

To Add Data- It's important to know what kind of file the data is in. A Shapefile is really 5-6 files that are different file types with the same name. A kml file is a file that either ends with .kml or .kmz. When adding data to your map you will need to click the 'Add Content' button and select which file type it is. \*Shapefiles and Geodatabase files will have more options in the appearance tab and view more attributes in their files.

### Home Tab

*Find Tool- This is where you search by address (quickest method)*

Directions- Will give you mapping directions from point A to point B (like mapquest)

Route- Will give you mapping directions to multiple places-by Address

*Measure – Where you can measure a line or area by drawing on the map*

Folder- To organize your table of Contents (this is already done for you)

View- if you want to return to the location your computer is viewing you can click this and save a name to return back to it.

Link- you can link a picture or hyperlink to a point on the map

*Point, Target, Line, Circle, Rectangle, Arrow, Area – All ways to create a note. After you draw with these tools where you want a note you click 'edit' to write in the note box. This will be displayed on the map.*

Basemap- Change the background of the map. Aerial is the easiest but explore the options if you want

*Add Content- you can add any shapefile, GIS file, google earth file that you can think of.. if you know the file type*

Analysis- Create a buffer around a given point. Information from each popup can be copied and pasted elsewhere

Contents Window- Shows or activates the table of contents window

Manage Layers- Move layers up and down (if you need to.. you shouldn't need to)

*Copy to Clipboard- copies your image (like print screen)*

Zoom to – Zoom to wherever you want (you can double click on a layer to zoom to that layer)

2D/3D – switch between 2 D and 3D. This makes the layers 3D, not the aerial (not recommended)

**Display Tab** – Mostly just changing where the compass, scale bar, coordinate system (not recommended)

## **Tools Tab** –

Remove – Removes selected item from map (right click remove also)

Show Legend – Shows legend of a layer (useful for the symbolized layers- also right click in contents)

Transparency – Change the transparency of a layer (being able to see through to the aerial- you shouldn't need to because they're all transparent when put in the program)

*Swipe – Moving side to side in your map instead of turning layers on and of... you can 'swipe'*

*Query – To look for a particular attribute in a layer (ex. Query a specific parcel or pid) this is slower than searching by address but can be done when necessary (see directions on bottom)*

Spatial Query – Select from one layer features by drawing on the map, you can then turn those into their own layer (If doing a spatial query from a previously created buffer click the 'from note' and select your buffer and how you want the query to be ran, then add to the map)

## **Appearance Tab- Only Parcels, City Limits and Non Symbolized Layers have this tab (Shapefiles)**

*Change the symbol to a fill or outline, Transparency, Outline Size*

**Add-Ins Tab** – Several Add-ins are available when searching online

## **ArcGIS Explorer Globe– (Top of the Menu)**

Save As – Save to a Desktop Location for Easy Access and to Save changes you've made

Print – Print the map

Share- Email View – Create a jpg file and automatically attach it to your e-mail of the screen shot

## How to Create a Query- Remember you can query anything based on any available attribute in that layer

### Creating a Query Layer

*Query Layers* in ArcGIS Explorer follow a standard Structured Query Language (SQL) pattern. The query will show all the features from the layer you selected which meet the criteria you build in the *Query Builder*. The first part of the query (select all the features from, or SELECT \* FROM) is supplied for you by ArcGIS Explorer. By selecting the layer, in this example Mountains, you were choosing the layer upon which this query would operate and allowing ArcGIS Explorer to now say "SELECT \* FROM Mountains WHERE...". It is the criteria which follow this command, also known as the WHERE clause, that you will build in the *Query Builder*.

The screenshot shows the 'Query Builder' dialog box. It has a title bar with a close button. The dialog is divided into three main sections: 'Fields', 'Operators', and 'Value'. The 'Fields' section on the left lists attributes: 'Name - String', 'Type - String', 'X - Double', 'Y - Double', and 'Z - Double'. The 'Operators' section in the middle contains buttons for comparison and logical operators: '=', '<>', 'LIKE', '>', '>=', 'AND', '<', '<=', 'OR', and 'NOT'. The 'Value' section on the right has a text input field, a 'Use' button, and a 'Get unique values' button. Below these sections is a large text area labeled 'Select features where...'. At the bottom left are 'Test' and 'Clear' buttons. At the bottom right are 'OK' and 'Cancel' buttons. A help link 'Help about Query Editor' is located at the bottom left.

### Step 1: Choose a field

When the *Query Builder* opens you will notice that it has already examined the contents of your layer and listed the attribute fields on the left hand side. To begin creating your query you should select one of the attribute field names, such as the field "Type" in the example below. As you do so, you will notice that the field name you selected appears in the query preview box in the lower half of the dialog. The rest of your query will gradually appear here as you choose further options. You can also edit the query directly in the preview box if required,

for example to delete or copy and paste parts of the query.

The Query Builder dialog box is shown with the following components:

- Fields:** A list box containing "Name - String", "Type - String" (highlighted in blue), "X - Double", "Y - Double", and "Z - Double".
- Operators:** A grid of buttons including "=", "<>", "LIKE", ">", ">=", "AND", "<", "<=", "OR", and "NOT".
- Value:** A text input field and a "Use" button.
- Select features where...:** A text input field containing the text "Type".
- Buttons:** "Test", "Clear", "Get unique values", "OK", and "Cancel".
- Status Bar:** A red message that reads "The query has been updated and must be tested." and a link to "Help about Query Editor".

## Step 2: Pick the operator

Next use the buttons in the centre of the dialog to insert the appropriate query operator, for example click the = button for equals, or the > button for greater than. In the query preview box your query might now resemble "Type" =.

The Query Builder dialog box is shown with the following components:

- Fields:** A list box containing "Name - String", "Type - String" (highlighted in blue), "X - Double", "Y - Double", and "Z - Double".
- Operators:** A grid of buttons including "=", "<>", "LIKE", ">", ">=", "AND", "<", "<=", "OR", and "NOT". The "=" button is highlighted in blue.
- Value:** A text input field and a "Use" button.
- Select features where...:** A text input field containing the text "Type" followed by an equals sign (=).
- Buttons:** "Test", "Clear", "Get unique values", "OK", and "Cancel".
- Status Bar:** A red message that reads "The query has been updated and must be tested." and a link to "Help about Query Editor".

### Step 3: Provide a value

In order to help you choose an appropriate value to complete your query, ArcGIS Explorer can search the field you selected for unique values. Click the Get unique values button to start this search. Once the search for unique values is finished, each unique value will be displayed in the list above. To add a value to the query you should select the value in the list. Alternatively if you know the value you would like to add to your query you can type it into the text box above the list of sample values and click Use to add it to the query preview below. Your query might now look something like "Type" = 'Corbett'.

Query Builder

Fields

- Name - String
- Type - String
- X - Double
- Y - Double
- Z - Double

Operators

= <> LIKE

> >= AND

< <= OR

NOT

Value

Corbett

Use

Corbett

Munro

Other

Get unique values

Select features where...

"Type" = 'Corbett'

Test Clear

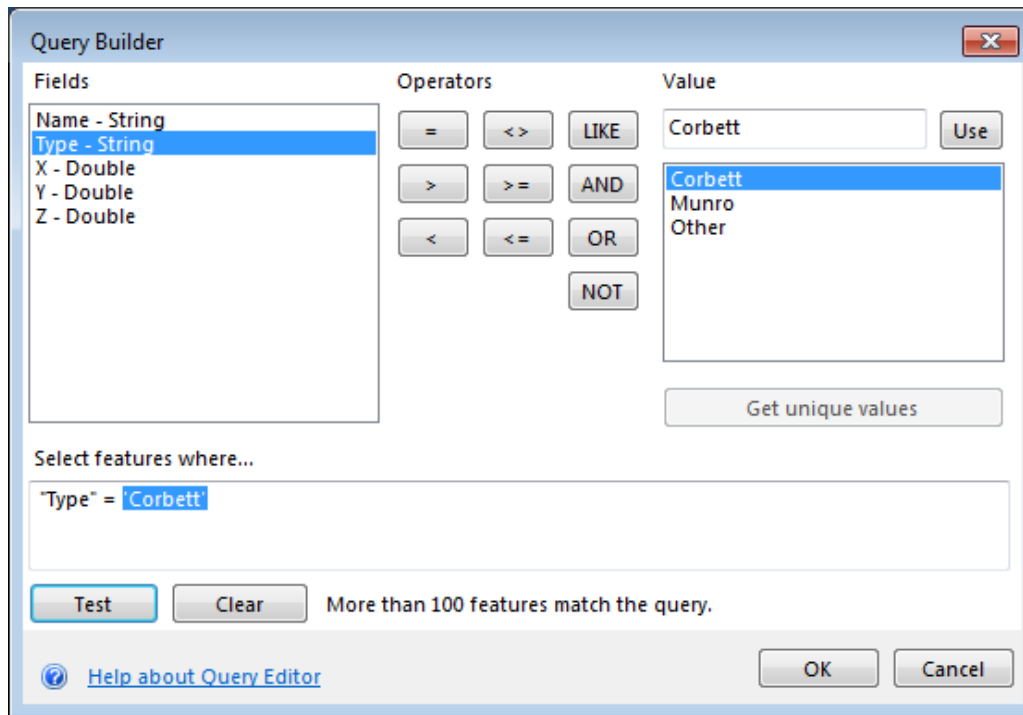
The query has been updated and must be tested.

Help about Query Editor OK Cancel

*Get unique value is not enabled for map services. If you are not familiar with the attributes in the service, click on a map service feature to view attributes in a popup window.*

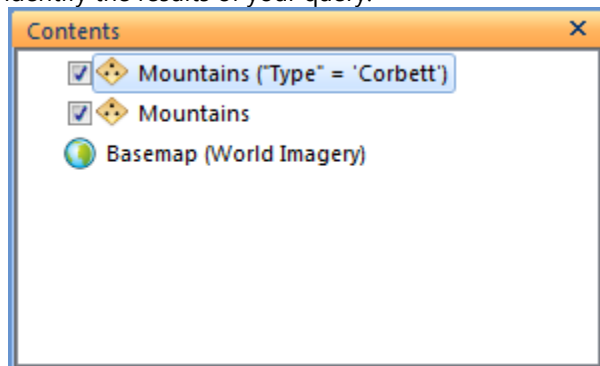
### Step 4: Test your query

Once your query is complete you should click Test to confirm that the query is valid. It is possible that your query might return many results, in which case, the dialog will display a message that it has found at least 100 matching features indicating that you might need to consider modifying the criteria in your query.



### Step 5: Apply your query

Finally, click OK to apply your query to the selected layer and update the map. Your query will appear as a new layer in the map and at the top of the Contents window, sharing the same name as the layer you selected and with the query string appended in brackets for example, Cities ("Population" >= 1000000). This makes it easy to identify the results of your query.



**Note:** After being created, query layers can be treated like other layers in the map; they can be renamed, moved to a folder, or dragged to a different position in the Contents window or simply removed from the map, using the tools on the Ribbon, or by right-clicking the layer in the Contents window and using the context menu.

## Query Syntax

Here are some guidelines you should follow when building your query:

### When searching string values...

- Strings must always be enclosed within single quotes.  
For example: "Name" = 'Ben Nevis' will return just the Mountain whose name is Ben Nevis.
- You can use the LIKE operator (instead of the = operator) to build a partial string search.  
For example: "Name" LIKE 'Ben%' will return only the 46 Scottish mountains whose names begin with Ben.

**Note:** If you use a wildcard character in a string with the = operator, the character is treated as part of the string, not as a wildcard.

- You can use greater than (>), less than (<), greater than or equal (>=), and less than or equal (<=) operators to select string values based on alphabetical sorting order.  
For example: "Name" > 'T' will return the 20 Scottish mountains whose names begin with T or greater (with Z being the greatest)

### When searching numeric values...

- You can query numbers using the equal (=), not equal (<>), greater than (>), less than (<), greater than or equal (>=), less than or equal (<=), and BETWEEN operators.  
For example: "POPULATION" >= 1000000 will return all the cities with a population greater than or equal to 1 million.

**Note:** Numeric values are always listed using the point as the decimal delimiter regardless of your regional settings. The comma cannot be used as a decimal or thousands delimiter in an expression.